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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/731,853	12/08/2003	Ju-Il Lee	51876P414	4256

8791 7590 03/27/2006

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EXAMINER

DICKEY, THOMAS L

ART UNIT	PAPER NUMBER
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2826

DATE MAILED: 03/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Advisory Action
Before the Filing of an Appeal Brief**

Application No.

10/731,853

Applicant(s)

LEE, JU-IL

Examiner

Thomas L. Dickey

Art Unit

2826

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 28 February 2006 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☐ The period for reply expires _____ months from the mailing date of the final rejection.
b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
(b) ☐ They raise the issue of new matter (see NOTE below);
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).

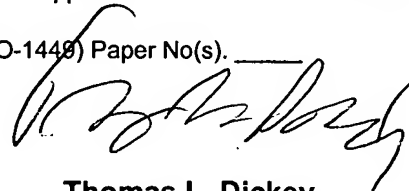
4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☐ Applicant's reply has overcome the following rejection(s): _____.
6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☐ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
The status of the claim(s) is (or will be) as follows:
Claim(s) allowed: _____.
Claim(s) objected to: _____.
Claim(s) rejected: 5-13.
Claim(s) withdrawn from consideration: 1-4.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:
See Continuation Sheet.
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08 or PTO-1449) Paper No(s). _____
13. ☐ Other: _____


Thomas L. Dickey
Patent Examiner
Art Unit 2826

Continuation of 11: does NOT place the application in condition for allowance because: It is argued, at page 6 of the remarks, that "El Gamal does not cure the defect of Rhodes." Applicant next argues, at page 7 of the remarks, that "Huang does not cure the defect of El Gamal." Tellingly, however, nowhere does Applicant argue, "El Gamal and Huang, taken together, do not teach one of skill in the art what he/she would need to know in order to modify the disclosure of Rhodes to make the claimed invention." Nowhere does Applicant argue, "Huang and Rhodes, taken together, do not teach one of skill in the art what he/she would need to know in order to modify the disclosure of Gamal to make the claimed invention." Applicant fails to make these arguments because Applicant understands there is no support for them. It is black letter law that one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Apparently recognizing this, Applicant attempts show nonobviousness by attacking references, not individually, but two at a time.

It is argued, at page 7 of the remarks, that "Huang also does not teach or suggest each pixel in a pixel array includes a drive transistor, a select transistor, a transfer transistor and a reset transistor, wherein the transistors of the pixel array are based on the first and the second gate insulator layers, and at least one transistor in a logic circuit is based on the second gate insulator layer." Clearly if Huang taught that precise combination it would be error to reject claim 5 as obvious. The combination Applicant recites is each and every limitation recited in claim 5. If Huang taught the combination Applicant so vigorously asserts Huang does not, Claim 5 could only properly be rejected as anticipated by Huang. It is true as true can be, but unproductive, in the Examiner's opinion, to assert that one of three references used in an obviousness analysis does not anticipate. Briefly, Huang teaches making thick gates by forming a second gate layer over a first gate layer while one making thin gates by forming said second layer over bare silicon, said bare silicon having been exposed by removing said first gate layer using a mask. These are several important steps of the method claimed in claim 5 but not the entire process. El Gamal teaches the importance of forming pixel transistor gates in thick oxide gate region 570. Outside thick oxide region 570 El Gamal places a logic circuit comprising a pair of transistors 540 and 550, having thin gate oxides.

It is argued, at page 6 of the remarks, that "Even assuming for the sake of argument that such [referring to the image sensor suggested by the combination of Rhodes and El Gamal] image sensor has each of the claimed transistors (e.g., a drive transistor, a select transistor, a transfer transistor, a reset transistor, and at least one transistor in a logic circuit), the image sensor would not have all of the transistors in the pixel array of one thickness and the transistors in the logic circuit of another thickness.... The cited references do not, separately or combined, teach or suggest that the transistors in the logic circuit have a different thickness from the transistors in the pixel array." This last statement, is, simply put, false. As has previously been explained, El Gamal, alone, teaches pixel transistors 510 and 520 confined to thick gate region 570, as well as a logic circuit in a thin gate region, said logic circuit comprising transistors 540 and 550. Note also figure 6 and column 6 lines 7-50, showing transfer transistor 620 and reset transistor 630 located in thick gate oxide region 670, with thin gate oxide transistors 640, 650, and 660 forming a logic circuit outside of region 670. See also figure 8, with thick gate oxide transistors M8 and M9 residing in pixel zone 820, and thin gate oxide transistors M1 through M7 forming the claimed logic circuit.

At page 6 of the remarks Applicant admits, "Rhodes discloses an image sensor having a pixel 14 containing a drive transistor 36, a select transistor 38, a transfer transistor 28, and a reset transistor 32. However, on page 7 Applicant complains, "Huang also does not teach or suggest each pixel in a pixel array includes a drive transistor, a select transistor, a transfer transistor and a reset transistor." Applicant makes the exact same complaint with regard to Ahn 5,804,491, lower down on page 7. On page 8 the exact same complaint appears with regard to Hori et al. 5,707,487. But Applicant does not explain why it should be fatal to an obviousness analysis for one reference to include subject matter not found in another.